

*Air Transport Association of America, Inc. · Aircraft Owners and Pilots Association
ARINC · ARRL, The National Assoc. for Amateur Radio · Astrolink International
AT&T Wireless Services, Inc. · Ellipso, Inc. · Ericsson Inc · Garmin International, Inc.
General Aviation Manufacturers Association · LocatorNet · Lockheed Martin Corporation
Magellan Corporation · Motorola, Inc. · National Business Aviation Association
Nokia, Inc. · Nortel Networks, Inc. · Omnistar, Inc. · Outreach
QUALCOMM Incorporated · Rockwell Collins · Satellite Industry Association
SiRF Technology · Sirius Satellite Radio · Spatial Technologies Industry Association
Sprint Corporation · Trimble Navigation Ltd. · US GPS Industry Council
WorldCom · XM Radio Inc.*

May 18, 2001

RECEIVED

MAY 18 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Michael K. Powell
Chairman
Federal Communications Commission
The Portals
445 Twelfth St., SW
Washington, DC 20554

Re: ET Docket 98-153

Dear Chairman Powell,

The Signatories listed above provide the following joint comments to the Commission in the above proceeding.

As a preliminary matter, many of the entities listed on this letterhead have filed individual comments with the Commission, reflecting their individual interests. However, all the Signatories to this letter have certain fundamental principles and conclusions in common. These are as follows:

FIRST, ultra-wideband (UWB) devices may offer a promising technology that could provide new and innovative services. However, test results to date demonstrate that such devices have unique transmission characteristics that produce intentional transmissions that cause significant harmful interference to GPS, other safety-of-life services, wireless services such as PCS, as well as to satellite services such as DARS. These tests show that other characteristics of the proposed UWB signals also vary greatly from the characteristics of unintentional emitters. Consequently, the signatories recommend that UWB devices be limited to spectrum above 6 GHz, not be allowed to operate in any restricted band, including safety-of-life service bands, and be subject to a licensing regime.

No. of Copies rec'd 014
List A B C D E

SECOND, to the extent the Commission considers permitting the deployment of UWB devices consistent with the foregoing, the Commission should identify specific categories of UWB devices and establish proposed rules for licensing these categories based on either actual tests of individual UWB waveforms or measurements using UWB simulators. This differentiated approach is appropriate and necessary because of the facts that: (i) there are a wide range of potential UWB devices, with differing characteristics, (ii) only a very small number of UWB devices have been tested (and not against many FCC-licensed receivers that will be affected), and (iii) many proposed UWB applications are in the concept stage. This differentiated approach is critical to assure that a particular class of UWB device may be safely introduced above 6 GHz without causing harmful interference to licensed and unlicensed services authorized to use these frequency bands, and without unwanted emissions causing harmful interference to licensed and unlicensed services operating below 6 GHz.

THIRD, in light of the above, the Signatories propose that the Commission take the following steps to implement a licensing regime separate and apart from Part 15:

(i) identify spectrum above 6 GHz, other than spectrum in restricted bands, where UWB devices can be used without creating harmful interference to users of that spectrum;

(ii) define specific categories of UWB devices, along with the technical and operational characteristics of each category, so that the Commission is in a position to identify appropriate regulation for specific categories of devices;

(iii) identify areas where further testing and/or analysis is needed, including the aggregate effects of multiple UWB devices, and take action to ensure that these tests or analysis are completed expeditiously;

(iv) based on steps (i)-(iii) above, devise specific rules for each category of UWB device. These rules should govern the application of the category of UWB device and its mode of operation, by providing allowable average and peak power levels, the allowable ranges of pulse characteristics in the time domain, allowable spectrum masks, and other appropriate limits which govern its introduction.

(v) incorporate these specific rules in a new, UWB-specific licensing system that would allow UWB devices to operate in the non-restricted bands specified above 6 GHz. The Commission should request comments from interested parties on any such proposed rules and the proposed licensing system before issuing a final rule.

(vi) should new categories of UWB devices be developed, the Commission should generally follow the procedure outlined above in order to enable the safe deployment of such new UWB categories.

The Signatories hope that these joint suggestions will assist the Commission in reaching satisfactory and expeditious resolution of this matter.

Respectfully submitted,

By: /s/
Air Transport Association of America, Inc.
David A. Berg
Assistant General Counsel
1301 Pennsylvania Avenue, NW
Suite 1100
Washington, DC 20004

By: /s/
Aircraft Owners and Pilots Association
Randy Kenagy
Director, Advanced Technology
421 Aviation Way
Frederick, MD 21401-4798

By: _____/s/_____
ARINC
Jack Smith
General Counsel
2551 Riva Road
MS 5-300
Annapolis, MD 21401

By: _____ /s/
ARRL, The National Assoc. for Amateur
Radio
Christopher D. Imlay
General Counsel
5101 Wisconsin Avenue, NW
Suite 307
Washington, DC 20016-4120

By: _____ /s/
Astrolink International LLC
Francis Latapie
Vice President
Government & Regulatory Affairs
6701 Democracy Blvd., Suite 1000
Bethesda, MD 20817

By: _____ /s/
AT&T Wireless Services, Inc.
Douglas I. Brandon
Vice President-External Affairs
David P. Wye
Director, Spectrum Policy
1150 Connecticut Avenue, N.W.
Washington, D.C. 20036

By: _____ /s/
Ellipso, Inc.
Gerald Helman
Vice President, International and
Governmental
Affairs
1133 21st Street, NW
8th Floor
Washington, DC 20036

By: _____ /s/
Ericsson Inc
Tom Lindstrom
Director, Telecom Policies & Regulations
1634 Eye Street, NW
Suite 600
Washington, DC 20006

By: _____ /s/
Garmin International, Inc.
Andrew R. Etkind
General Counsel
1200 East 151st Street
Olathe, KS 66062

By: _____ /s/
General Aviation Manufacturers Association
Ronald L. Swanda
Vice President of Operations
1400 K Street, NW, Suite 801
Washington, DC 20005-2485

By: _____ /s/
LocatorNet
Max Cameron
President
14960 Woodcarver Road
Colorado Springs, CO 80921

By: _____ /s/
Lockheed Martin Corporation
Gerald Musarra
Vice President, Trade & Regulatory Affairs
Crystal Square 2, Suite 403
1725 Jefferson Davis Highway
Arlington, VA 22202

By: _____ /s/
Magellan Corporation
Jonathan W. Ladd
Senior Vice President Engineering
Worldwide Commercial Technology
471 El Camino Real
Santa Clara, CA 95050-4300

By: /s/
Nortel Networks, Inc.
Raymond L. Strassburger
Vice President, Global Government
Relations
801 Pennsylvania Avenue, NW
Suite 700
Washington, DC 20004

Michael K. Powell
May 18, 2001
Page 7

By: _____ /s/
Omnistar, Inc.
Max K. Huff
Vice President
8200 Westglen
Houston, Texas 77063

By: _____ /s/
Outreach
Kathryn B. Heatley, Ph.D.
President and CEO
97 East Brokaw Road
Suite 140
San Jose, CA 95112

By: _____ /s/
QUALCOMM Incorporated
Dean R. Brenner – Counsel for
QUALCOMM
Incorporated
Crispin & Brenner, P.L.L.C.
1156 15th Street, N.W., Suite 1105
Washington, D.C. 20005

By: _____ /s/
Rockwell Collins, Inc.
Linda C. Sadler
Director, Governmental and Regulatory
Affairs
1300 Wilson Blvd., Suite 200
Arlington, VA 22209

Michael K. Powell
May 18, 2001
Page 8

By: _____/s/_____
Satellite Industry Association
Clayton Mowry
Executive Director
225 Reinekers Lane, Suite 600
Alexandria, VA 22314

By: _____/s/_____
SiRF Technology
Scott J. Rafferty
Senior Director, Business Development
148 East Browkaw Road
San Jose, CA 95112

By: _____/s/_____
Sirius Satellite Radio
Robert D. Briskman
Executive Vice President, Engineering
1221 Avenue of the Americas
New York, NY 10020

By: _____/s/_____
Spatial Technologies Industry Association
Frederic W. Corle
President
1030 15th Street, N.W.
Suite 1028
Washington, D.C. 20005

Michael K. Powell

May 18, 2001

Page 9

By: _____/s/
Sprint Corporation
Luisa L. Lancetti
Vice President PCS Regulatory Affairs
Jay C. Keithley
Vice President Sprint Federal Regulatory
Affairs
401 9th Street, N.W.
Washington, D.C. 20004

By: _____/s/
Trimble Navigation Ltd.
Ann Ciganer
Vice President, Public Policy
645 N. Mary Avenue
Sunnyvale, CA 94086

By: _____/s/
US GPS Industry Council
Dr. Charles Trimble
Chairman of the Council
Suite 1200
Washington, DC 20036

By: _____/s/
WorldCom
Tally Frenkel
1133 19th Street, NW
Washington, D.C. 20036

By: _____/s/
XM Radio Inc.
Lon C. Levin
Senior Vice President, Regulatory
1500 Eckington Place, N.E.
Washington, D.C. 20002

Michael K. Powell
May 18, 2001
Page 10

cc: Commissioner Susan Ness
Commissioner Harold Furchtgott-Roth
Commissioner Gloria Tristani
Ms. Magalie R. Salas, Secretary